

Title (en)
Load-bearing structure

Title (de)
Tragende Struktur

Title (fr)
Structure portante

Publication
EP 0905019 A2 19990331 (DE)

Application
EP 98117665 A 19980917

Priority
DE 19742314 A 19970925

Abstract (en)
A variable geometry wing profile has no separate moving components and is made of plastic layers in a sandwich construction. An inner core plastic layer has a softening temperature below the operating temperature of the wing profile and has heater wires embedded inside its layer to soften the layer when the wing profile is changed. The servo force to change the wing profile is externally applied by mechanical means, or by heating a memory alloy which returns to its original shape above a set temperature. The alloy is heated by a separate heating element.

Abstract (de)
Eine tragende Struktur, die wahlweise starr oder beweglich einstellbar ist, weist ein thermoplastisches Material (7) auf, das eine Erweichungstemperatur über der Betriebstemperatur der tragenden Struktur besitzt. Damit ist die tragende Struktur bei Betriebstemperatur starr ausgebildet. Durch eine Heizeinrichtung, durch die das thermoplastische Material auf Erweichungstemperatur erwärmbar ist, ist die tragende Struktur beweglich einstellbar. <IMAGE>

IPC 1-7
B64C 3/48; **B64C 27/615**

IPC 8 full level
B63B 1/24 (2006.01); **B63B 39/06** (2006.01); **B64C 3/48** (2006.01); **B64C 27/615** (2006.01)

CPC (source: EP US)
B63B 39/06 (2013.01 - EP US); **B64C 3/38** (2013.01 - US); **B64C 3/48** (2013.01 - EP US); **B64C 27/615** (2013.01 - EP US);
B64C 2027/7288 (2013.01 - EP US); **Y02T 50/30** (2013.01 - EP US)

Cited by
EP1090835A1; FR2898865A1; EP2301841A3; EP3423350A4; US7939178B2; US8387536B2; US8382042B2; US8657561B2; WO2010110829A1; WO2007110518A1; US8864065B2; US11174002B2; US8016249B2; US8342457B2; US8573535B2

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